



# **SPEED CONTROL SYSTEMS(H4DO)**


## ***SP(H4DO)***

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1. General Description
2. Accelerator Pedal

SPEED CONTROL SYSTEMS(H4DO) > General Description

CAUTION

- When performing service operation, refer to “Repair Contents” in “General Description”.  [Ref. to REPAIR CONTENTS>Repair Contents.](#)
- Prior to starting work, pay special attention to the following:
  1. Always wear work clothes, a work cap, and protective shoes. Additionally, wear a helmet, protective goggles, etc. if necessary.
  2. Protect the vehicle using a seat cover, fender cover, etc.
  3. Prepare the service tools, clean cloth, containers to catch grease and oil, etc.
- Vehicle components are extremely hot immediately after driving. Be wary of receiving burns from heated parts.
- When performing a repair, identify the cause of trouble and avoid unnecessary work.
- Before disconnecting connectors of sensors or units, be sure to disconnect the ground terminal from the battery sensor.
- Always use the jack-up point when the lifting device, shop jacks or rigid racks are used to support the vehicle.
- Before starting works, remove dirt and corrosion around the target area.
- Keep the removed parts in order and protect them from dust and dirt.
- All removed parts, if to be reused, should be reinstalled in the original positions with attention to the correct directions, etc.
- For the parts except for the non-reusable parts, replace then with new parts if necessary.
- Be sure to tighten bolts and nuts to the specified torque.

SPEED CONTROL SYSTEMS(H4DO) > General Description

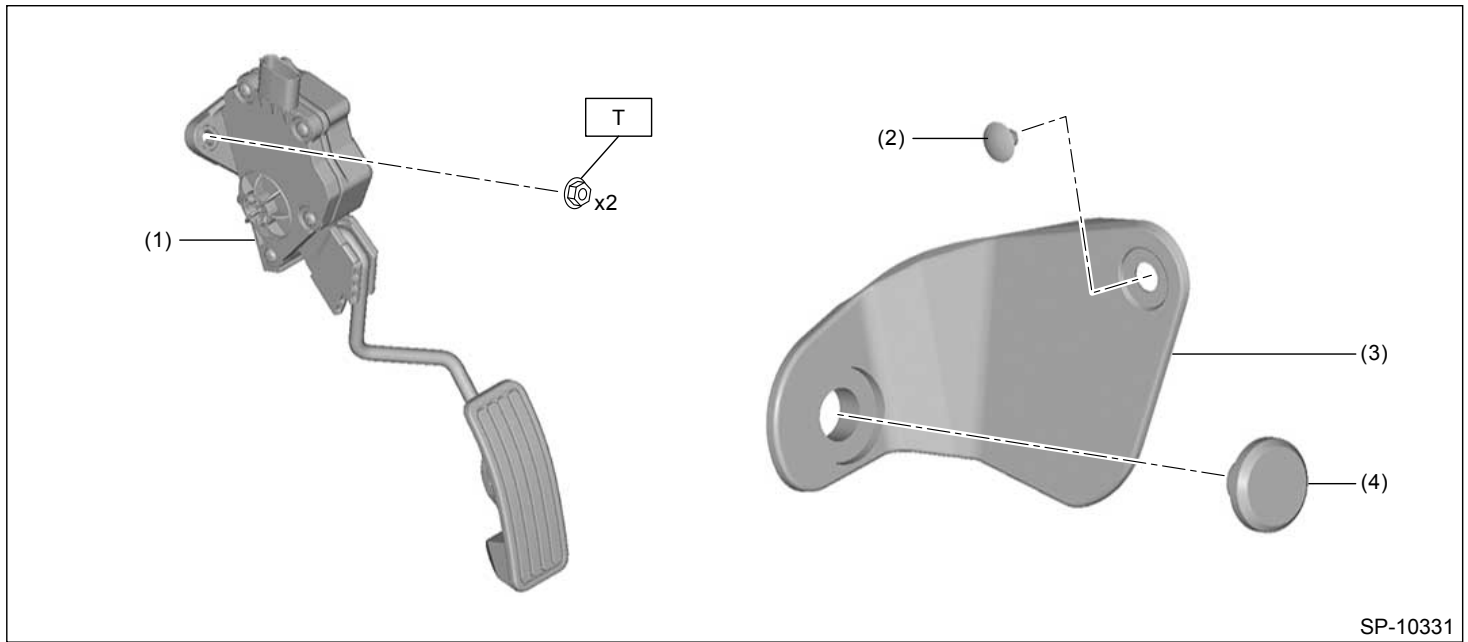
SPECIFICATION

1. ACCELERATOR PEDAL

Stroke	mm (in)	At pedal pad	49 — 59 (1.93 — 2.32)
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SPEED CONTROL SYSTEMS(H4DO) > General Description

COMPONENT



(1) Accelerator pedal ASSY

(3) Accelerator plate

**Tightening torque: N·m (kgf-m, ft-lb)**

(2) Clip

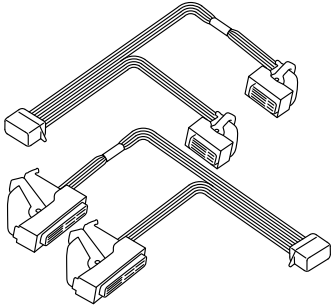
(4) Accelerator stopper

**T: 7.5 (0.8, 5.5)**

## SPEED CONTROL SYSTEMS(H4DO) > General Description

### PREPARATION TOOL

#### 1. SUBARU SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST18460AA180</p>	18460AA180	CHECK BOARD	Used for measuring voltage and resistance of ECM terminals.
	—	SUBARU SELECT MONITOR 4	Used for setting of each function and troubleshooting for electrical system.



STSSM4

**Note:**

- For detailed operation procedures, refer to “Help” of application.
- Used together with interface for Subaru Select Monitor (such as DST-i and DST-010).


## 2. OTHER

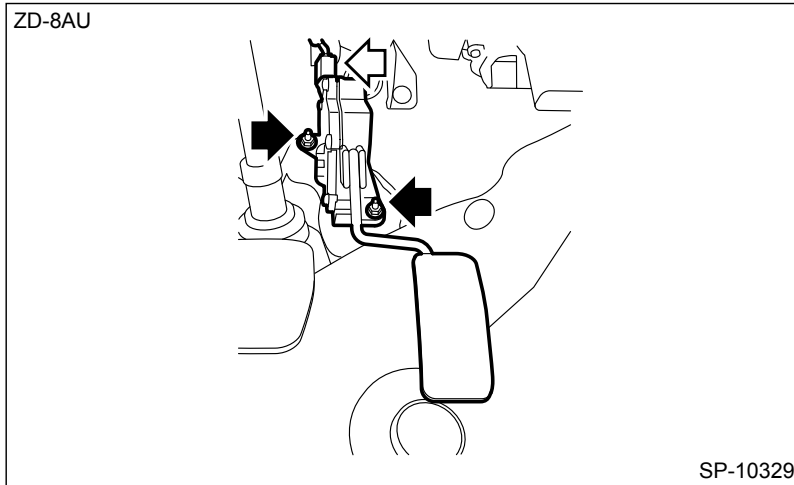
	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.

## SPEED CONTROL SYSTEMS(H4DO) > Accelerator Pedal

### REMOVAL

#### 1. ACCELERATOR PEDAL ASSEMBLY

1. Disconnect the ground terminal from battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
2. Disconnect the connector and remove the accelerator pedal assembly.

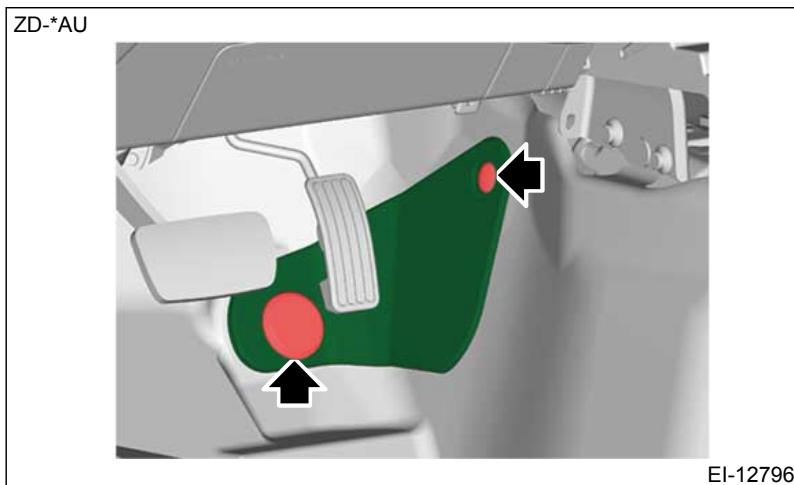


#### 2. ACCELERATOR STOPPER

1. Remove the clip and accelerator stopper, and then remove the accelerator plate.

**Note:**

**Pulling out the accelerator stopper may damage the inside. Remove it by rotating it counterclockwise.**



## SPEED CONTROL SYSTEMS(H4DO) > Accelerator Pedal

### INSTALLATION

#### 1. ACCELERATOR PEDAL ASSEMBLY

1. Install the accelerator pedal assembly, and connect the connector.

### Tightening torque:

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

2. Connect the ground terminal to battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)

## 2. ACCELERATOR STOPPER

1. Set the accelerator plate and install the accelerator stopper and clip.




### Note:

**The accelerator pedal cannot be fully depressed if the accelerator stopper is loose. After installing the accelerator stopper, check that the stopper is not loose.**

## SPEED CONTROL SYSTEMS(H4DO) > Accelerator Pedal


### INSPECTION

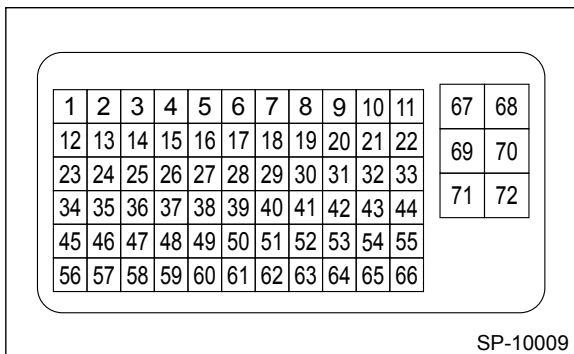
## 1. CHECK ACCELERATOR PEDAL SENSOR AREA (METHOD WITH CIRCUIT TESTER)

1. Disconnect the ground terminal from battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
2. Disconnect the connector from ECM.  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\)\(H4DO\)>Engine Control Module \(ECM\)>REMOVAL.](#)
3. Attach the ST between the ECM, engine wiring harness and the bulkhead wiring harness.  [Ref. to ENGINE \(DIAGNOSTICS\)\(H4DO\)>General Description>PREPARATION TOOL > HOW TO USE CHECK BOARD.](#)

### Special tool:

CHECK BOARD (18460AA180)

4. Connect the ground terminal to battery sensor.  [Ref. to REPAIR CONTENTS>NOTE > BATTERY.](#)
5. Turn the ignition switch to ON.
6. Measure the voltage between ECM connector terminals.



Accelerator pedal sensor	Accelerator pedal	Terminal No.	Standard
Main	Not depressed (full closed)	66 (+) — 55 (—)	0.3 — 1.1 V
	Depressed (full opened)		2.3 — 3.8 V
Sub	Not depressed (full closed)	64 (+) — 65 (—)	0.3 — 1.1 V

	Depressed (full opened)	
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		2.3 — 3.8 V
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- After inspection, restore the vehicle to its original state.

## 2. CHECK ACCELERATOR PEDAL SENSOR AREA (METHOD WITH SUBARU SELECT MONITOR)

### Note:

Individual difference of the accelerator pedal may not be corrected sufficiently on the ECM side after the memory was cleared or the battery was removed and installed on the vehicle. Therefore, when the accelerator opening angle signal does not indicate [100%], repeat the ignition switch ON (engine OFF) and ignition switch OFF operations at intervals of three seconds or more, until the accelerator opening angle signal indicates [100%].

- Turn the ignition switch to ON.
- Read the accelerator opening angle signal and the accelerator sensor voltage using Subaru Select Monitor.  [Ref. to ENGINE \(DIAGNOSTICS\)\(H4DO\)>Data Monitor.](#)

Accelerator pedal sensor	Acceleration opening angle signal	Standard
Main	0.0 %	0.3 — 1.1 V
	100.0 %	2.3 — 3.8 V
Sub	0.0 %	0.3 — 1.1 V
	100.0 %	2.3 — 3.8 V

## 3. OTHER INSPECTIONS

- Check that there is no deformation, cracks or other damages.
- Check for smooth operation when the accelerator pedal is depressed.
- Check if the accelerator pedal returns to its original position smoothly when the pedal is released.